

IN THE CLAIMS

1. (currently amended) A blood treatment system, comprising:

a blood treatment machine with first and second opposing portions spaced apart to form a gap therebetween;

said ~~flow balancing~~ blood treatment machine having at least one actuator and at least one sensor disposed on at least said first opposing portion;

a support ~~[[on]]~~ attached to said blood treatment machine;

a cartridge panel holding a fluid circuit, said fluid circuit having at least one portion to be aligned with said at least one actuator and at least another portion to be aligned with said at least one sensor prior to engagement therebetween;

said support being configured to permit said cartridge panel to be rested thereupon when said cartridge panel is inserted in said gap;

said support and said cartridge panel being configured such that said fluid circuit at least one and at least another portions are aligned respectively with said at least one actuator and said at least one sensor;

said flow treatment machine first and second opposing portions being movable with respect to each other to close around said cartridge thereby to cause said at least one actuator to engage said at least one portion and said at least one sensor to engage said at least another portion.

2. (Original) A system as in claim 1, wherein said at least one actuator includes multiple peristaltic pumps.

3. (Original) A system as in claim 1, wherein said first and second opposing portions are connected by rails at bottom ends thereof and said support includes at least a portion of said rails.

4. (Original) A system as in claim 1, wherein:

said first and second opposing portions are movable in a single motion;

said fluid circuit at least one portion includes at least three tube portions configured to be engaged with peristaltic pumps;

said at least one actuator includes at least three peristaltic pumps;

whereby said tube portions and said peristaltic pumps are caused to be engaged by a movement of said first and second opposing portions.

5. (Original) A system as in claim 1, wherein said cartridge panel includes cutouts to expose said at least one and said at least another portions to said at least one actuator and said at least one sensor, respectively.

6. (Original) A system as in claim 1, wherein said blood treatment machine is configured to substantially equalize a quantity fluid removed from a patient with a quantity of fluid added to a patient during a blood treatment.

7. (canceled)

8. (Original) A system as in claim 1, wherein said actuators includes multiple peristaltic pumps.

9. (currently amended) A system as in claim [[1]] 4, wherein said first and second opposing portions are connected by rails at bottom ends thereof and said support includes at least a portion of said rails.

10. (currently amended) A system as in claim [[1]] 6, wherein:

said first and second opposing portions are movable in a single motion;

said fluid circuit at least one portion includes at least three tube portions configured to be engaged with peristaltic pumps;

said actuators include at least three peristaltic pumps;

whereby said tube portions and said peristaltic pumps are caused to be engaged by a movement of said first and second opposing portions.

11. (Original) A system as in claim 1, wherein said cartridge panel includes cutouts to expose said at least one and said at least another portion to said at least one actuator and said at least one sensor, respectively.

12. (Original) A system as in claim 1, wherein said blood treatment machine is configured to substantially equalize a quantity fluid removed from a patient with a quantity of fluid added to a patient during a blood treatment.

13-15. (canceled)

16. (new) A blood treatment system, comprising:

a blood treatment machine with first and second opposing portions spaced apart to form a gap therebetween;

the blood treatment machine having at least one actuator and at least one sensor disposed on at least the first opposing portion, the at least one actuator including at least one pump;

a disposable cartridge panel that supports and holds a fluid circuit, the fluid circuit having at least one portion to be aligned with the at least one actuator and at least another portion to be aligned with the at least one sensor prior to engagement therebetween;

a support attached to the blood treatment machine and configured to permit the cartridge panel to be rested thereupon when the cartridge panel is inserted in the gap;

the support and the cartridge panel being configured such that the fluid circuit at least one and at least another portions are aligned respectively with the at least one actuator and the at least one sensor;

the flow treatment machine first and second opposing portions being movable with respect to each other to close around the cartridge thereby to cause the at least one actuator to engage the at least one portion and the at least one sensor to engage the at least another portion.

17. (new) The system of claim 16, wherein the at least one actuator includes at least two pumps.

18. (new) The system of claim 16, wherein the second opposing portion carries a user interface panel.

19. (new) The system of claim 16, wherein the first opposing portion constitutes a major portion of the blood treatment machine and the second portion is movably attached to it.

20. (new) The system of claim 16, wherein the first and second portions have opposing facing surfaces that lie adjacent the cartridge, which opposing facing surfaces are parallel and remain parallel when closed around the cartridge.

21. (new) The system of claim 16, wherein the first and second portions are slidably interconnected.

22. (new) The system of claim 16, wherein the first and second portions are slidably interconnected by rails.

23. (new) A blood treatment system, comprising:

a blood treatment machine with first and second opposing portions spaced apart to form a gap therebetween;

said blood treatment machine having at least one actuator and at least one sensor disposed on at least said first opposing portion;

a support attached to said blood treatment machine;

a cartridge panel holding a fluid circuit, said fluid circuit having at least one portion to be aligned with said at least one actuator and at least another portion to be aligned with said at least one sensor prior to engagement therebetween;

said support being configured to permit said cartridge panel to be rested thereupon when said cartridge panel is inserted in said gap;

said support and said cartridge panel being configured such that said fluid circuit at least one and at least another portions are aligned respectively with said at least one actuator and said at least one sensor;

said flow treatment machine first and second opposing portions being movable with respect to each other to close around said cartridge thereby to cause said at least one actuator to engage said at least one portion and said at least one sensor to engage said at least another portion;

wherein said first and second opposing portions are connected by rails at bottom ends thereof and said support includes at least a portion of said rails.